

ABSTRACT

A catalyst composition comprising metal phosphate binder and zeolite can be used to enhance olefin yields during hydrocarbon cracking processes. The composition typically further comprises aluminum phosphate, and the metal of the metal phosphate is a metal other than aluminum. Depending on the metal chosen, enhanced propylene and isobutylene yields in fluid catalytic cracking processes can be obtained compared to catalysts that do not contain such metal phosphate binders. The catalyst can also comprise non-zeolitic molecular sieves, thereby making the composition suitable for use in areas outside of catalytic cracking, e.g., purification and adsorbent applications.